

FIG. 1A

Heavy Chain IgG1 Constant Region

gcctccacca	agggcccatc	ggtcttcccc	ctggcacccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctggtcaag	gactacttcc	ccgaaccggg	gacgggtgtcg	120
tggaaactcag	gcgcccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtccctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	cacccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaact	cctgggggga	360
ccgtcagttc	tcctcttccc	cccaaaaccc	aaggacaccc	tcattgatctc	ccggacccct	420
gaggtcacat	gcgtgggtgg	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgggagga	gcagtacaac	540
agcacgtacc	gtgtgggtcag	cgtccctcacc	gtcctgcacc	aggactggct	gaatggcaag	600
gagtacaagt	gcaagggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	780
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccggtg	840
ctggactccg	acggctcctt	cttccctctat	agcaagctca	ccgtggacaa	gagcaggtgg	900
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	960
cagaagagcc	tctccctgtc	tccgggtaaa				990

FIG. 1B

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKKVEP	KSCDKTHTCP	PCPAPELLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWESNGQP	ENNYKTTTPV	LDSDGSFFLY	SKLTVDKSRW	300
QQGNVFSCSV	MHEALHNHYT	QKSLSLSPGK				330

FIG. 2A

Kappa Chain Constant Region

cgaactgtgg	ctgcaccatc	tgtcttcac	ttcccgccat	ctgatgagca	gttgaaatct	60
ggaactgcct	ctgttgtgtg	cctgctgaat	aacttctatc	ccagagaggc	caaagtacag	120
tggaaggtgg	ataacgccct	ccaatcgggt	aactcccagg	agagtgtcac	agagcaggac	180
agcaaggaca	gcacctacag	cctcagcagc	accctgacgc	tgagcaaagc	agactacgag	240
aaacacaaaag	tctacgcctg	cgaagtcacc	catcagggcc	tgagctcgcc	cgtcacaaaag	300
agcttcaaca	ggggagagtg	t				321

FIG. 2B

RTVAAPSVFI	FPPSDEQLKS	GTASVVCLLN	NFYPREAKVQ	WKVDNALQSG	NSQESVTEQD	60
SKDSTYSLSS	TLTLKADYE	KHKVYACEVT	HQGLSSPVTK	SFNRGEC		107

FIG. 3A

1119 Heavy Chain Variable Region

gaggtgcagc	tggtacagtc	tggagcagag	gtgaaaaagc	ccggggagtc	tctgaagatc	60
tctgttaagg	gttctggata	caactttacc	agctactgga	tcggctgggt	gcgccagatg	120
cccgggaaag	gcctggagtt	gatggggatc	atctatctctg	gtgactctga	taccagatac	180
agcccgtcct	tccaaggcca	ggtcaccatc	tcagccgaca	agtccatcag	caccgcctac	240
ctgcagtgga	gcagcctgaa	ggcctcggac	accgccatgt	attactgtgg	ttcggggagc	300
tacttttact	tcgatctctg	gggccgtggc	accctgggtca	ccgtctctag	t	351

FIG. 3B

EVQLVQSGAE	VKKPGESLKI	SCKGSGYNFT	SYWIGWVRQM	PGKGLELMGI	IYPGDS DTRY	60
SPSFQGQVTI	SADKSISTAY	LQWSSLKASD	TAMYYCGSGS	YFYFDLWGRG	TLVTVSS	117

FIG. 4A

1119 Kappa Chain Variable Region

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtca	gagtgttagc	agcagctact	tagcctggta	ccagcagaaa	120
cctggccagg	ctcccaggct	cctcatatat	ggtgcatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgaagatt	ttgcagtgta	ttactgtcag	cggtctgggtg	gctcatcatt	cactttcggc	300
cctgggacca	aagtggatat	caaa				324

FIG. 4B

EIVLTQSPGT	LSLSPGERAT	LSCRASQSVS	SSYLAWYQQK	PGQAPRLLIY	GASSRATGIP	60
DRFSGSGSGT	DFTLTISRLE	PEDFAVYYCQ	RSGGSSFTFG	PGTKVDIK		108

FIG. 5A

1118 Heavy Chain Variable Region

gaggtgcagc	tgggtgcagtc	tggagcagag	gtgaaaaagc	ccggggagtc	tctgaagatc	60
tcctgtaagg	gttctggata	cagctttacc	agctactgga	tcggctgggt	gcgccagatg	120
cccgggaaag	gcctggagtg	gatggggatc	atctatcctg	gtgactctga	taccagatac	180
agcccgtcct	tccaaggcca	ggtcaccatc	tcagccgaca	agtccatcag	caccgcctac	240
ctgcagtgga	gcagcctgaa	ggcctcggac	accgccatgt	attactgtgg	ttcggggagc	300
tactggtact	tcgatctctg	gggccgtggc	accctggtca	ccgtctctag	t	351

FIG. 5B

EVQLVQSGAE	VKKPGESLKI	SCKGSGYSFT	SYWIGWVRQM	PGKGLEWMGI	IYPGDS DTRY	60
SPSFQGQVTI	SADKSISTAY	LQWSSLKASD	TAMY YCGSGS	YWYFDLWGRG	TLVTVSS	117

FIG. 5C

1118* Heavy Chain Variable Region

EVQLVQSGAE	VKKPGESLKI	SCKGSGYSFT	SYWIGWVRQM	PGKGLEWMGI	IYPGDS DTRY	60
SPSFQGQVTI	SADKSISTAY	LQWSSLKASD	TAMY YCGSGS	YWYFDLRGRG	TLVTVSS	117

FIG. 5D

1118* Heavy Chain Variable Region

gaggtgcagc	tgggtgcagtc	tggagcagag	gtgaaaaagc	ccggggagtc	tctgaagatc	60
tcctgtaagg	gttctggata	cagctttacc	agctactgga	tcggctgggt	gcgccagatg	120
cccgggaaag	gcctggagtg	gatggggatc	atctatcctg	gtgactctga	taccagatac	180
agcccgtcct	tccaaggcca	ggtcaccatc	tcagccgaca	agtccatcag	caccgcctac	240
ctgcagtgga	gcagcctgaa	ggcctcggac	accgccatgt	attactgtgg	ttcggggagc	300
tactggtact	tcgatctccg	gggccgtggc	accctggtca	ccgtctctag	t	351

FIG. 6A

1118 Kappa Chain Variable Region

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtc	gagtgttagc	agcagctcct	tagcctggta	ccagcagaaa	120
cctggccagg	ctcccaggct	cctcatatat	ggtgcatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgaagatt	ttgcagtgt	ttactgtcag	cggctctggtg	gctcatcatt	cactttcggc	300
cctgggacca	aagtggatat	caaa				324

FIG. 6B

EIVLTQSPGT	LSLSPGERAT	LSCRASQSVS	SSSLAWYQQK	PGQAPRLLIY	GASSRATGIP	60
DRFSGSGSGT	DFTLTISRLE	PEDFAVYYCQ	RSGGSSFTFG	PGTKVDIK		108

FIG. 7A

1121 Heavy Chain Variable Region

gaggtgcagc	tggtgcagtc	tgagcagag	gtgaaaaagc	ccggggagtc	tctgaagatc	60
tctgtgaagg	gttctggata	caactttacc	agctactgga	tcggctgggt	gcgccagatg	120
cccgggaaag	gcctggagtt	gatggggatc	atctatcctg	gtgactctga	taccagatac	180
agcccgtcct	tccaaggcca	ggtcaccatc	tcagccgaca	agtccatcag	caccgcctac	240
ctgcagtgga	gcagcctgaa	ggcctcggac	accgccatgt	attactgtgg	ttcggggagc	300
tactggtact	tcgatctctg	gggccgtggc	accctgggtca	ccgtctctag	t	351

FIG. 7B

EVQLVQSGAE	VKKPGESLKI	SCKGSGYNFT	SYWIGWVRQM	PGKGLELMGI	IYPGDS DTRY	60
SPSFQGQVTI	SADKSISTAY	LQWSSLKASD	TAMYICGSGS	YWYFDLWGRG	TLVTVSS	117

FIG. 8A

1121 Kappa Chain Variable Region

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtca	gagtgttagc	agcagctact	tagcctggta	ccagcagaaa	120
cctggccagg	ctcccaggct	cctcatatat	ggtgcatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgaagatt	ttgcagtgta	ttactgtcag	cggtctgggtg	gctcatcatt	cactttcggc	300
cctgggacca	aagtggatat	caaa				324

FIG. 8B

EIVLTQSPGT	LSLSPGERAT	LSCRASQSVS	SSYLAWYQQK	PGQAPRLLIY	GASSRATGIP	60
DRFSGSGSGT	DFTLTISRLE	PEDFAVYYCQ	RSGGSSFTFG	PGTKVDIK		108

FIG. 8C

1121* Kappa Chain Variable Region

EIVLTQSPGT	LSLSPGERAT	LSCRASQSII	SSYLAWYQQK	PGQTPRLLIY	GVSSRATGIP	60
DRFSGSGSGT	DFTLTITRLE	PEDFAVYYCQ	QYGNFSMYTF	GQGTKLEIK		109

FIG. 8D

1121* Kappa Chain Variable Region

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtca	gagtattatc	agcagctact	tagcctggta	ccagcagaaa	120
cctggccaga	ctcccaggct	cctcatctat	ggtgtatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcac	cagactggag	240
cctgaagatt	ttgcagtgta	ttactgtcag	cagtatggta	actcatttat	gtacactttt	300
ggccagggga	ccaagctgga	gatcaaa				327

Fig. 9

A549 Assay

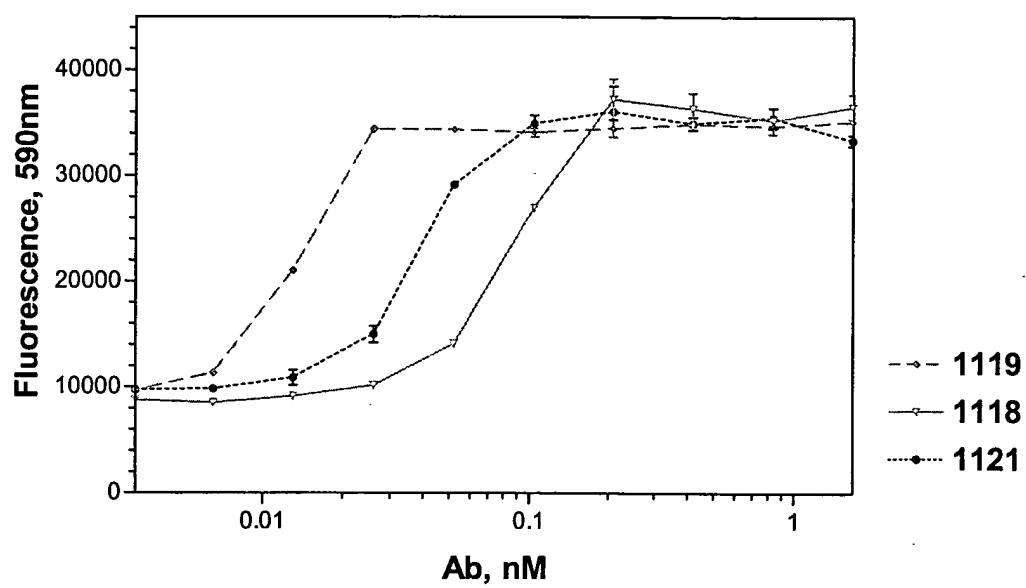


Fig. 10

THP1 assay

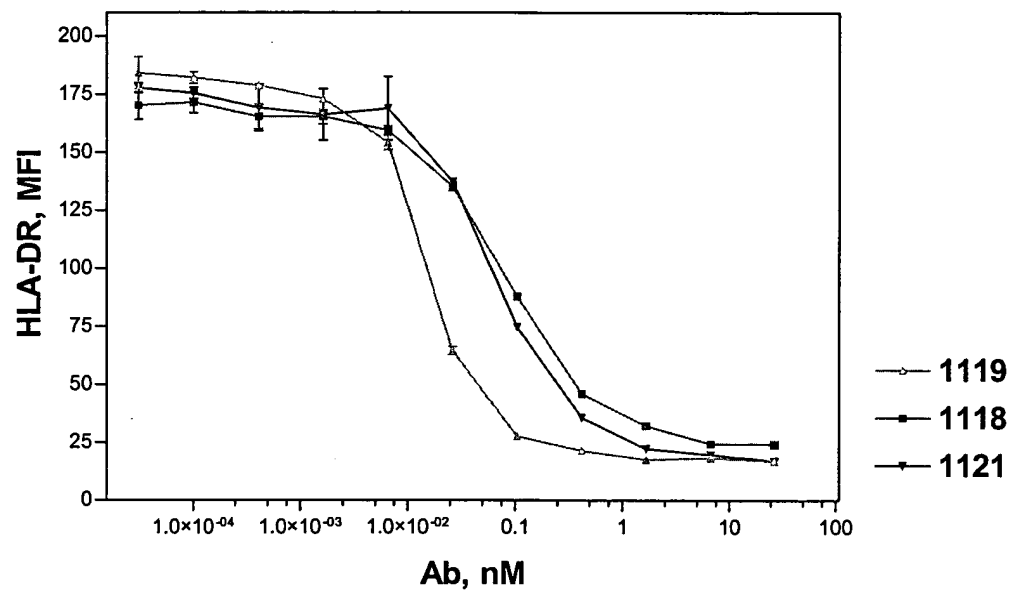


Fig. 11

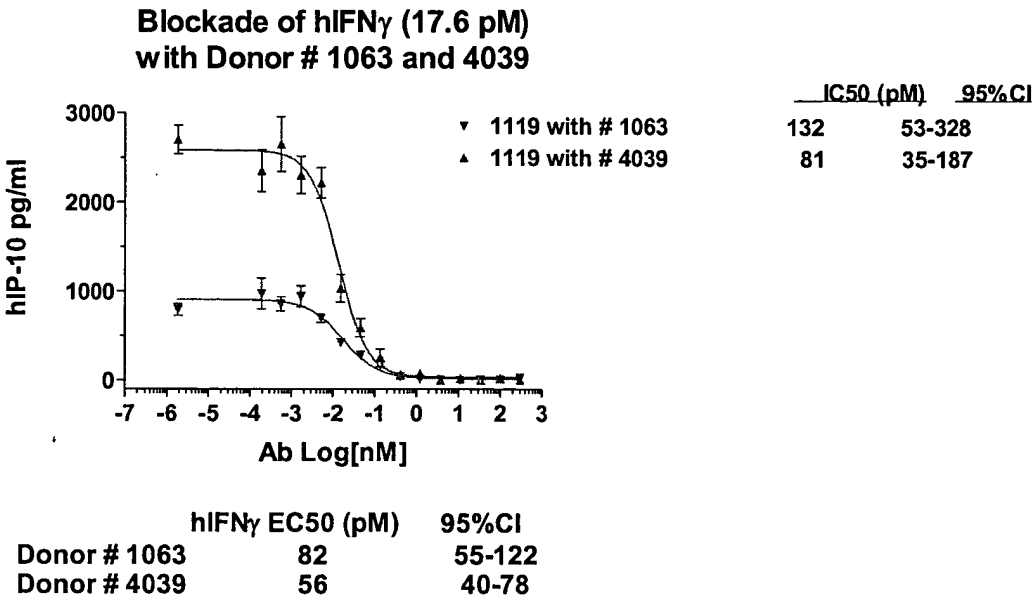


FIG. 12

CDR1

1119	MGSTAILALL	LAVLQGVCAE	VQLVQSGAEV	KKPGESLKIS	CKGSGYNFTS	<u>YWIGWVRQMP</u>	60
1118	MGSTAILALL	LAVLQGVCAE	VQLVQSGAEV	KKPGESLKIS	CKGSGYSFTS	<u>YWIGWVRQMP</u>	60
1118*	MGSTAILALL	LAVLQGVCAE	VQLVQSGAEV	KKPGESLKIS	CKGSGYSFTS	<u>YWIGWVRQMP</u>	60
1121	MGSTAILALL	LAVLQGVCAE	VQLVQSGAEV	KKPGESLKIS	CKGSGYNFTS	<u>YWIGWVRQMP</u>	60

CDR2

1119	GKGLEWMGII	YPGDSDTTRY	<u>PSFQGQV</u>	TIS	ADKSISTAYL	QWSSLKASDT	AMYYCGSGSY	120
1118	GKGLEWMGII	YPGDSDTTRY	<u>PSFQGQV</u>	TIS	ADKSISTAYL	QWSSLKASDT	AMYYCGSGSY	120
1118*	GKGLEWMGII	YPGDSDTTRY	<u>PSFQGQV</u>	TIS	ADKSISTAYL	QWSSLKASDT	AMYYCGSGSY	120
1121	GKGLEWMGII	YPGDSDTTRY	<u>PSFQGQV</u>	TIS	ADKSISTAYL	QWSSLKASDT	AMYYCGSGSY	120

CDR3

1119	<u>EYFDLW</u>	GRGT	LVTVSSASTK	GPASVFPLAP	SSKSTSGGTA	ALGCLVKDYP	EPVTVSWNSG	180
1118	<u>WYFDLW</u>	GRGT	LVTVSSASTK	GPASVFPLAP	SSKSTSGGTA	ALGCLVKDYP	EPVTVSWNSG	180
1118*	<u>WYFDLW</u>	GRGT	LVTVSSASTK	GPASVFPLAP	SSKSTSGGTA	ALGCLVKDYP	EPVTVSWNSG	180
1121	<u>WYFDLW</u>	GRGT	LVTVSSASTK	GPASVFPLAP	SSKSTSGGTA	ALGCLVKDYP	EPVTVSWNSG	180

FIG. 13

CDR1		
1119	METPAQLLFL LLLWLPD ~~TTG~~ EIVLTQSPGT LSLSPGERAT LSCRASQSVS <u>SSSLAWYQQK</u>	60
1118	METPAQLLFL LLLWLPD ~~TTG~~ EIVLTQSPGT LSLSPGERAT LSCRASQSVS <u>SSSLAWYQQK</u>	60
1121	METPAQLLFL LLLWLPD ~~TTG~~ EIVLTQSPGT LSLSPGERAT LSCRASQSVS <u>SSSLAWYQQK</u>	60
1121*	METPAQLLFL LLLWLPD ~~TTG~~ EIVLTQSPGT LSLSPGERAT LSCRASQSVS <u>SSSLAWYQQK</u>	60
CDR2		
1119	PGQAPRLLIY <u>GASSRATGIP</u> DRFSGSGSGT DFTLTISRLE PEDFAVYYCQ <u>RSGGSSTTFG</u>	120
1118	PGQAPRLLIY <u>GASSRATGIP</u> DRFSGSGSGT DFTLTISRLE PEDFAVYYCQ <u>RSGGSSTTFG</u>	120
1121	PGQAPRLLIY <u>GASSRATGIP</u> DRFSGSGSGT DFTLTISRLE PEDFAVYYCQ <u>RSGGSSTTFG</u>	120
1121*	PGQAPRLLIY <u>GASSRATGIP</u> DRFSGSGSGT DFTLTISRLE PEDFAVYYCQ <u>RSGGSSTTFG</u>	121
CDR3		
1119	PGTKVD IKRT VAAPSVFIFP PSDEQLKSGT ASVVCLLNNF YPREAKVQWK VDNALQSGNS	180
1118	PGTKVD IKRT VAAPSVFIFP PSDEQLKSGT ASVVCLLNNF YPREAKVQWK VDNALQSGNS	180
1121	PGTKVD IKRT VAAPSVFIFP PSDEQLKSGT ASVVCLLNNF YPREAKVQWK VDNALQSGNS	180
1121*	PGTKLE IKRT VAAPSVFIFP PSDEQLKSGT ASVVCLLNNF YPREAKVQWK VDNALQSGNS	181
1119	QESVT	185
1118	QESVT	185
1121	QESVT	185
1121*	QESVT	186

Figure 14

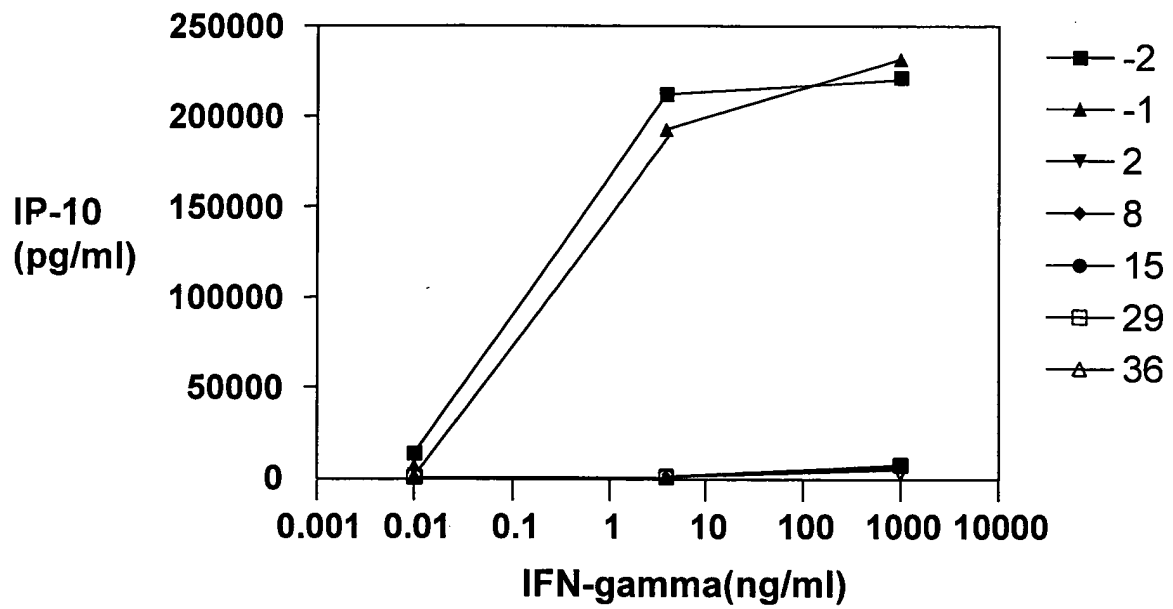


Figure 15

